

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Part 90 of the)
Commission's Rules to Adopt)
Regulations for Automatic)
Vehicle Monitoring Systems)

PR Docket No. 93-61

DOCKET FILE COPY ORIGINAL

To: The Commission

OPPOSITION TO PETITIONS FOR RECONSIDERATION

In accordance with Section 1.429 of the Commission's rules, Itron, Inc. ("Itron"), submits this opposition to several of the petitions for reconsideration filed in the above-referenced proceeding.¹ Itron is the world leader in RF-based automatic meter reading systems used by gas, electric, and water utility companies. The meter transponders used by Itron systems, which operate under Part 15 of the Commission's rules, function in the portion of the 902-928 MHz band from which multilateration LMS ("M-LMS") systems are excluded under the Commission's new rules. Itron's meter readers use extremely low power transmissions of less than one milliwatt.

Although Itron expects to be able to share its portion of the 902-928 MHz band with non-multilateration LMS ("N-LMS") systems, it is concerned that some of the proposals made in the various petitions for reconsideration in this proceeding will disrupt the delicate balance required to allow this band to be shared by LMS and Part 15 technologies. Thus, the petitions for reconsideration, as set forth below, should be denied.

¹ Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, Report and Order, PR Docket No. 93-61 (rel. Feb. 6, 1995) ("Report and Order").

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I. The Height And Power Restrictions On Non-Multilateration Systems Should Not Be Changed.

Amtech posits that non-multilateration LMS systems should be permitted to exceed the applicable height and power restrictions of the rules, provided that the field strength of such systems does not exceed 90 dBuV/m (one mile from the site at six feet above ground).² Amtech explains that this requirement “would result in a field strength equivalent to that which would be produced by a facility operating at 30 watts ERP from a height of 15 meters above ground.”³ However, this appears to be true only if one assumes a free space path propagation model. Any of the other propagation models that exist that approximates real-world propagation loss will result in a substantially lower field strength. Thus, if authorized to generate a field strength of 90 dBuV/m at one mile in real-world conditions, Amtech would actually be permitted to transmit at a power much in excess of 30 watts at the initial transmit location.

Moreover, as Amtech points out, many of its antennae are actually located close to the ground and directed upward at an angle of 45 degrees.⁴ Thus, under the rules proposed by Amtech, it would be permitted to transmit at extremely high power levels while remaining under the 90 dBuV/m field strength limit. Such transmissions could create a wall of radio noise in the immediate vicinity of the transmitter. Thus, the 30 watt limit on N-LMS transmission should not be eliminated.

² Amtech Petition at 9-12.

³ Id. at 12 n.21.

⁴ Id. at 11.

However, if the Commission determines that a field strength test would be a more appropriate measure of interference from N-LMS systems, a field strength representative of real world conditions should be used. Amtech, for one, has been extremely successful at deploying its tag-reading technologies.⁵ Itron expects that Amtech and others will continue to deploy N-LMS systems at a rapid pace. As these devices become more common place, the need to confine them to very localized transmissions increases.

Indeed, Itron notes that the only reason that N-LMS systems will require as much as 30 watts ERP is because the majority of such systems employ or will employ modulated backscatter technology to read passive identification tags. As N-LMS systems using active tags become more prevalent, and N-LMS systems become more commonplace, the Commission may need to revisit the N-LMS power limitations to help ensure their continued spectrum compatibility with other users of the 902-928 MHz band.

II. Wideband Forward Links Should Not Be Allowed To Exceed 30 Watts.

Uniplex urges the Commission to reconsider the power limitations applicable to multilateration systems. Specifically, Uniplex has asked that the Commission allow 300 watt power transmission by LMS systems employing wideband forward links.⁶ This request should be denied.

In the Report and Order, the Commission established a set of rules designed to facilitate the sharing of the 902-928 MHz band by LMS systems, Part 15 technologies, and other services. The rules demand concessions from each of the services in the band. Given the need to establish rules that will facilitate the

⁵ Id. at 5-6 (more than 3,000 Amtech transmitters are now in operation).

⁶ Uniplex Petition at 6.

efficient sharing of the band, there can be no justification for such high power wideband forward links. As the record in this proceeding indicates, LMS systems employing high power wideband forward links would render many nearby Part 15 devices, which are limited to 1 watt of power, virtually unusable.⁷ This clearly violates the spirit and intent of the Commission's LMS rules, and would be contrary to the public interest.

III. Other Proposals Of LMS Proponents Threaten To Undermine The Commission's Attempt To Establish Effective Band Sharing Rules For The 902-928 MHz Band.

LMS proponents have petitioned the Commission for reconsideration of various aspects of the Report and Order. Although many of these changes will only effect Itron indirectly, Itron is concerned that these requests reflect an effort to make the Commission's LMS rules amenable to new and undefined services in the LMS bands, and to short circuit the Commission's proposed LMS auctions.

For instance, several petitioners have asked the Commission to allow grandfathered AVM systems to add sites and expand their coverage areas.⁸ Others have asserted that LMS systems will not be viable unless they are freely permitted to interconnect voice services to the PSN.⁹ Still others have questioned the Commission's rules designed to ensure the coexistence of LMS and Part 15 technologies.¹⁰ All of these petitions should be rejected.¹¹

⁷ See Part 15 Coalition Petition at 4; CellNet Data Systems, Inc. ("CellNet") Petition for Reconsideration at 4-5; Ad Hoc Petition at 12-15.

⁸ Pinpoint Petition for Reconsideration at 13-16; MobileVision Petition for Reconsideration at 7-9; Uniplex Petition for Reconsideration at 5-6.

⁹ MobileVision petition at 2-6.

¹⁰ See SBMS Petition at 7-9; Pinpoint Petition at 9, 21; MobileVision Petition at 13.

¹¹ Itron is a member of the Part 15 Coalition which is filing an Opposition in this proceeding. On the issues raised in Section III of this pleading, Itron adopts the arguments made by the Part 15 Coalition, and submits these additional supplementary comments.

To begin with, the Commission has provided for limited grandfathering of existing (or licensed) AVM systems in this case so as not to unreasonably dislocate a few AVM licensees that relied on their interim operating authority to establish systems in the 902-928 MHz band.¹² The Commission has not found that such grandfathered systems will share the 902-928 MHz band efficiently. On the contrary, the expectation is that grandfathered systems will not.¹³ Essentially, petitioners have asked that the Commission make a bad situation worse. But, unlike the grandfathering of existing systems, there is no convincing justification for doing so. To the extent that current licensees want more spectrum or coverage, they should be required to bid on it at auction like their competitors.

Second, the proposals to allow unlimited interconnection by LMS systems to the PSN go far afield of the purposes for which LMS was originally intended. Whereas LMS was originally promoted as a vehicle monitoring service, would-be LMS providers are now asking for the authority to provide a voice messaging service in the LMS bands that can compete with cellular, PCS, and other new technologies. This runs directly contrary to the Commission's intent, which was to ensure that LMS services are not used for "general messaging purposes."¹⁴

Third, the Commission's band sharing rules must be maintained and strengthened to ensure that both LMS and Part 15 technologies can effectively operate in the 902-928 MHz band. For instance, the pre-authorization testing requirement for M-LMS systems and the presumption of non-interference for certain Part 15 technologies are sensible means of protecting against the deployment

¹² Report and Order at ¶¶ 3-4.

¹³ Itron, like the Ad Hoc Gas Distribution Utilities Coalition ("Ad Hoc"), questions the need for a three-year modification period for grandfathered (and constructed) systems. See Ad Hoc Petition for Reconsideration at 10.

¹⁴ Report and Order ¶ 26.

of poorly designed and inefficient LMS systems. This protection should not be diluted.

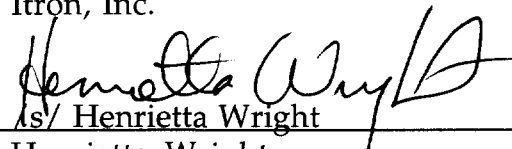
CONCLUSION

For the reasons set forth herein, Itron urges the Commission to deny in substantial part the petitions of Pinpoint Communications, Inc., MobileVision, L.P., Southwestern Bell Mobile Systems, Inc., Uniplex Corporation, Amtech Corporation, and AirTouch Teletrac.

Respectfully submitted,

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May 24, 1995

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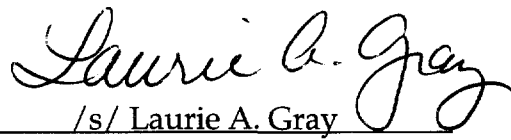
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